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10/666,497	09/19/2003	Alexander T. Chenvainu	00216-616001 / OB-211	9179
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EXAMINER GUIDOTTI, LAURA COLE				
ART UNIT 3727		PAPER NUMBER		
NOTIFICATION DATE 03/22/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

# Office Action Summary

**Application No.**

10/666,497

**Applicant(s)**

CHENVAINU ET AL.

**Examiner**

Laura C. Guidotti

**Art Unit**

3727

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 35, 37-39, 41-46 and 48-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35, 37-39, 41-46 and 48-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 35, 37-39, 41-43, 45-46, and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDougall, GB 2371217 in view of Braun et al., WO 02/38004 and in view of Bigler et al., WO 94/03125, in further view of Kressner et al., US 6,021,538.

McDougall discloses the claimed invention including a handle (10), a neck extending from the handle (narrowed portion of 10 adjacent head 11, see Figure 1), a motor within the handle (14), and extending from the neck, a head (11) including a support member (13), the support member including a lower portion constructed to be

rotationally oscillated, relative to the neck, by the motor (Figures 1-3; page 4 lines 1-22), a plurality of tufts of bristles extending from the support member (19, see Figures), and a plurality of elastomeric fins mounted in and extending from the support member (23; page 6 lines 10-12), each elastomeric fin having a textured surface (as they inherently have a texture, most likely a smooth texture as it appears smooth in the Figures)(claims 35, 43, 50). Regarding claims 38 and 45, the tufts of bristles and elastomeric fins, in combination, have at least three different heights (Figure 5). Regarding claims 39, 46, and 51, the tufts of bristles and elastomeric fins, in combination, and arranged so that their tips define a rounded contour (see Figures). Further regarding claim 43, the support member is configured for releasable attachment to a power toothbrush (via 17, page 3 lines 25-28). McDougall does not disclose that the fins are pivotally mounted and extending from the support member, or that the top surface has an elongated shape or a specific surface area.

Braun et al. disclose the claimed invention including a support member (12), the support member including a lower portion (24) and a top surface (22) having an elongated shape such as an oval (see Figure 1), a plurality of tufts of bristles extending from the support member (14), and a plurality of elastomeric fins pivotally mounted in and extending from the support member (16, Figure 3, Page 3 Line 2), each fin having a textured surface (as each fin inherently has a "texture"). The pivoted fins are to fit between teeth to clean the interdental spaces (Page 3 Lines 2-3).

Bigler et al. teach a power toothbrush wherein a rotationally oscillated head includes a support member (where tufts 9 are mounted and extend from), the head is

rotationally oscillated, relative to the neck, by the motor (page 6 last paragraph), and the top surface of the support member has an elongated shape that appears to be oval or elliptical (Figure 1), a major axis of the elongated shape being disposed generally parallel to a long axis of the handle (Figure 1).

Kressner et al. disclose a toothbrush head having a support member with a top surface having an overall surface area from about 170 to 200mm<sup>2</sup> (Column 3 Lines 47-50; when the diameter is 15mm the area is 176.625 mm<sup>2</sup>.) Regarding claims 41-42, 48-49, and 52-53, the top surface has a major of 15mm, which falls into the range of having a length of about 14 to 19 mm and a width of about 12 to 15mm (see Column 3 Lines 47-50).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the elastomeric fins of McDougall so that they are pivotally mounted, as Braun et al. teach, so that pivoted fins are able to fit between teeth and effectively clean interdental spaces, and further it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the shape of the support member of McDougall so that it was an elongated shape like an oval, as Bigler et al. teach, so as to provide a shaped support member that corresponds to and is capable of ergonomically cleaning the oral cavity while also being rotationally oscillated, and even further it would have been obvious for one of ordinary skill in the art at the time of the invention to provide the support member of McDougall and Bigler et al. with an overall surface area of from about 170 to 200mm<sup>2</sup>, a length of about 14 to 19 mm, and a width of 12 to 15

mm, as Kressner et al. teach, in order to have a reasonable sized toothbrush head capable of sufficiently cleaning the oral cavity.

2. Claims 37, 44, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDougall, GB 2371217, Braun et al., WO 02/38004, Bigler et al., WO 94/03125, and Kressner et al., US 6,021,538 in view of Nishioka, US 4,373,541.

McDougall, Braun et al., Bigler et al., and Kressner disclose all elements previously mentioned above, however do not disclose that the textured surface of the elastomeric fins includes ribs.

Nishioka teaches tooth cleaning elements wherein the surfaces have been given a texture in the form of ribs (Figures 10-12) so that the cleaning elements are more abrasive to allow for increased cleaning of tooth surfaces (Column 1 Lines 13-44).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the elastomeric fins of McDougall, Braun et al., Bigler et al., and Kressner to include ribs as part of its textured surface, as Nishioka teaches, so that the fins provide abrasive cleaning surfaces advantageous for the cleaning of tooth surfaces.

### ***Response to Arguments***

3. Applicant's arguments filed 11 June 2009 have been fully considered but they are not persuasive.

The Applicant argues first that the support member of Bigler et al. is not oval shaped and does not disclose a shape of the brush head. The Examiner respectfully disagrees. The Applicant argues that the Figure is shown in a perspective view and that because of this view that the support member 9 is represented as an oval

or elliptical and alleges in actuality that it is circular. The Examiner maintains that the toothbrush shown in Figure 1 of Bigler et al. clearly shows that the support member is oval or elliptical in shape. Regarding the Examiner's reason of making the modification so that the support member being oval-shaped capable of ergonomically cleaning the oral cavity is somewhat based upon many (almost every) common manual toothbrush has a support member oval or elliptical in shape and throughout time that has proven to be an ergonomically appropriate shape for a support member for a toothbrush. The Applicant argues that one would modify an elongated shaped top surface to have the surface area of Kressner because the top surface is circular. The Examiner respectfully disagrees. While not elongated, Kressner teaches a toothbrush dimensioned so that an overall surface area of is from about 170 to 200mm<sup>2</sup> in order to have a reasonable sized toothbrush head capable of sufficiently cleaning the oral cavity. Next, the Applicant argues that it would not have been obvious to modify the elastomeric fins of McDougall to be pivotally mounted as Braun teaches because of the semi-circular shape and arrangement of the fins of McDougall. The Examiner respectfully disagrees. The pins of Braun are taught to pivot in order to fit between teeth to clean the interdental spaces (Page 3 Lines 2-3) and it would have been obvious to modify the elastomeric fins of McDougall to be pivotally mounted as Braun teaches so that the interdental spaces can effectively be cleaned. Lastly, the Applicant argues that the rejection of claims 37, 44, and 50-53 is improper because the cleaning elements that are textured of Nishioka are not membranes, rather are bristles. The Examiner respectfully disagrees with the Applicant's arguments. Nishioka is relied upon for the teaching of having textured

cleaning elements to increase the abrasiveness of the cleaning element for better cleaning (Column 1 Lines 13-44). It would have been obvious to modify the elastomeric fins of McDougall, to include ribs as part of its textured surface, as Nishioka teaches, so that the fins provide abrasive cleaning surfaces advantageous for the cleaning of tooth surfaces.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Wednesday, 6am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura C Guidotti/  
Primary Examiner, Art Unit 3727

lcg